

## CLAIMS

1. A medical solution comprising  
5        a first single solution comprising bicarbonate and carbonate in such proportions that the partial pressure of carbon dioxide, CO<sub>2</sub>, in the first single solution is of the same order of magnitude as the partial pressure of carbon dioxide, CO<sub>2</sub>, of the atmosphere, and  
10        a second single solution comprising an acid, wherein said first and second single solutions, after terminal sterilization and up on use, are to be mixed to form a final solution, wherein said second single solution has a pH of 1.0-1.5, and wherein the said final solution has a pH of 7.0-7.6.
2. A medical solution according to claim 1, wherein said first single solution has a pH of 10.1-10.5, preferably 10.3.
3. A medical solution according to any of claim 1 or  
20        2, wherein said second single solution has a pH of 1.3.
4. A medical solution according to anyone of the previous claims, wherein the second single solution comprises HCl.
5. A medical solution according to any one of the  
25        previous claims, wherein the medical solution further comprises one or more osmotic agents.
6. A medical solution according to claim 5, wherein said one or more osmotic agents are chosen among glucose, glucose polymers, glycerol, xylitol, fructose, amino acids, peptides, proteins, amino sugars, N-acetyl glucose amine (NAG), or combinations thereof.
7. A medical solution according to claim 5, wherein the one or more osmotic agents, before being mixed into

the final solution, are arranged in said second single solution.

8. A medical solution according to claim 5, wherein said one or more osmotic agent, before being mixed into 5 said final solution, are arranged in a third single solution.

9. A medical solution according to claim 8, wherein said one or more osmotic agent also are arranged in a fourth single solution.

10 10. A medical solution according to claim 8 or 9, wherein said one or more osmotic agents in said third and/or fourth single solution is glucose and/or glucose polymers giving rise to glucose degradation products (GDPs) during terminal sterilization and/or storage, and 15 wherein said third and/or fourth single solutions comprise an acid and has a pH of at least 1.8, preferably at least 2.0, and a pH of at most 2.6, preferably at most 2.5, and most preferably at most 2.3.

11. A medical solution according to anyone of the 20 previous claims, wherein the medical solution further comprises one or more electrolytes.

12. A medical solution according to claim 11, wherein said one ore more electrolytes comprise one or more of the ions of sodium, calcium, potassium, magnesium 25 and/or chloride.

13. A medical solution according to claim 11 or 12, wherein one or more electrolytes, before being mixed into the final solution, is/are arranged in said first single solution.

30 14. A medical solution according to any of claims 11–13, wherein one or more electrolytes, before being mixed into the final solution, is/are arranged in said second single solution.

15. A medical solution according to any of claims 11-14, wherein one or more electrolytes, before being mixed into the final solution, is/are arranged in said third single solution and/or said fourth single solution.
- 5       16. A medical solution according to any one of the previous claims, wherein the different single solutions are provided in different compartments in a multi-compartment bag before being mixed to the final solution.
- 10      17. A method for producing a medical solution according to any of the previous claims, said method comprising
- providing said single solutions in separate compartments, and thereafter
- terminal sterilizing said single solutions.
- 15      18. A method according to claim 17, wherein the terminal sterilization is heat sterilization and/or radiation sterilization.
- 20      19. A method according to any of claims 17 or 18, wherein the terminal sterilization is heat sterilization at a temperature of at least 100°C, preferably at least 121°C.
- 25      20. A method according to any of claims 17-19, wherein said first and second single solutions, after terminal sterilization and up on use, are mixed to form a final solution.
21. A method according to any of claims 17-19, wherein said first, second and third single solutions, after terminal sterilization and up on use, are mixed to form a final solution.
- 30      22. A method according to any of claims 17-19, wherein said first, second and fourth single solutions, after terminal sterilization and up on use, are mixed to form a final solution.

23. A method according to any of claims 17-19, wherein said first, second, third and fourth single solutions, after terminal sterilization and up on use, are mixed to form a final solution.

5 24. A method according to any of claims 17-23, wherein the different single solutions are provided in different compartments in a multi-compartment bag before being mixed to the final solution.

10 25. A multi-compartment bag comprising the medical solution according to any one of claims 1-16.

26. A use of a medical solution according to any one of claims 1-16.